

1/16

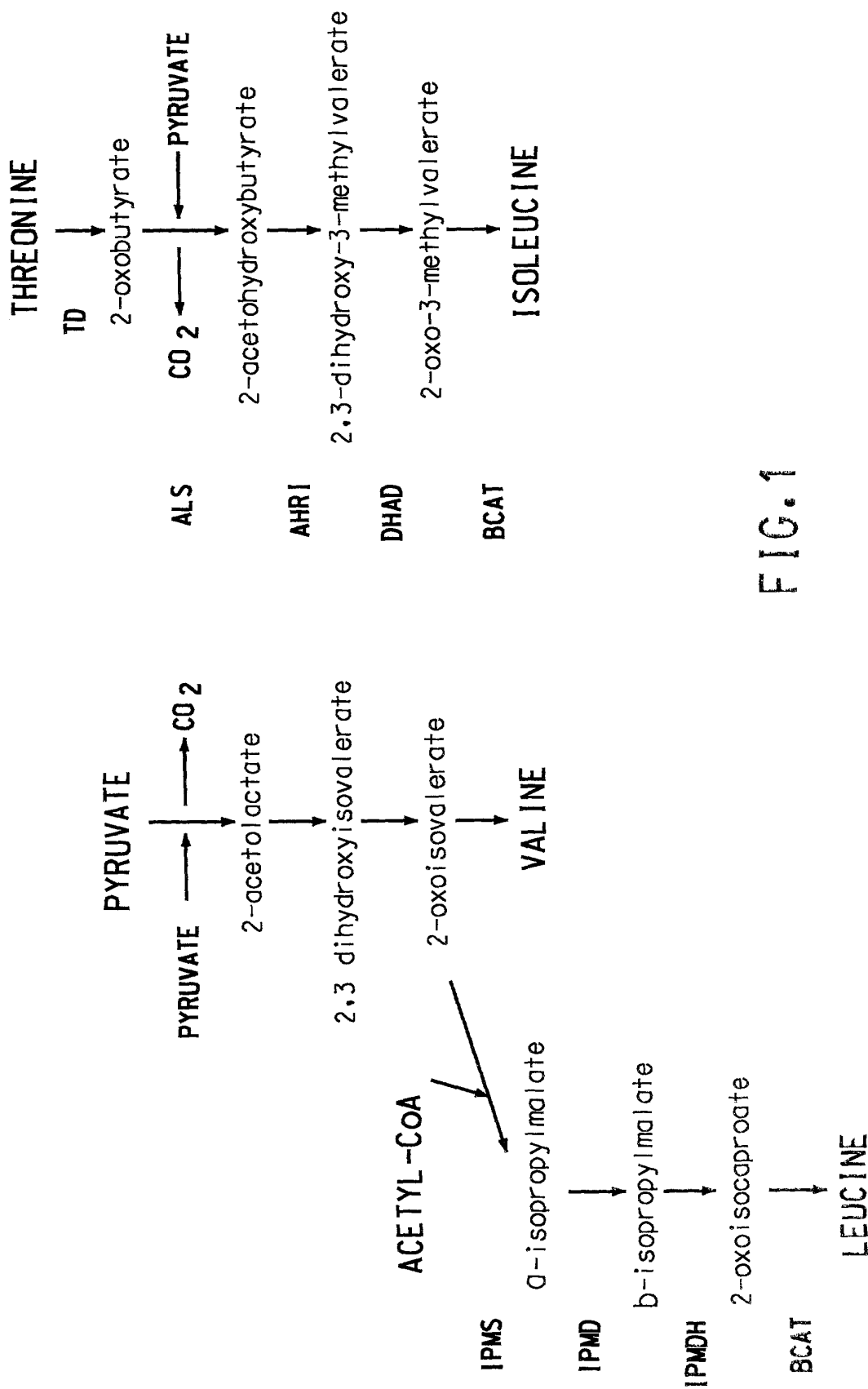


FIG. 1

FIG. 1

Fig. 2A

SEQ ID NO: 7	PGSCGMYTANTMASAAEVLGLTIPNSSSFPAVSKEKLAECDNIGEYIKKTMELGILPRD	241
SEQ ID NO: 2	AGACGMYTANTMASAIETLGMSLPYSSSTPAEDPLKLEECRLAGKYLLLELLKMDLKPKD	300
SEQ ID NO: 4	AGACGMYTANTMASAIEAMGMSLPYSSSTPAEDPLKLEECRLAGKYLLLELLKMDLKPRD	
SEQ ID NO: 6	.....
		301
SEQ ID NO: 7	ILTKEAFENAITYVVATGGSTNAVLHLVAVAHSAAGVKLSPDDFQRIISDTPLIGDFKPSG	360
SEQ ID NO: 2	IIITEKSLRNAMVIVMALGGSTNAVLHLIAIARSVGLHLTLDDFQKVSQVDFLADLKPSG	
SEQ ID NO: 4	IIITRKSRLRNAMVIVMALGGSTNAVLHLIAIAKSVGIDLTLDDEQKVSDEVPIADLKPSG	
SEQ ID NO: 6	.....
		361
SEQ ID NO: 7	KYVMADLINVGGTQSVIKLYENNMHLGNTMTVTGDTLAERAKKAPSLPEGQEIIRPLSH	420
SEQ ID NO: 2	KYVMEDLHKIGGTPAVIHYLEQGLLDGDCMTVTGKTLAENAKIFPPLSEGQEIIRPLDN	
SEQ ID NO: 4	KYVMEDVHKIGGTPAVIRYLLEQGLDGDGDCMTVTGKTLAENAEELVPPLSNGQEIIRPVEN	
SEQ ID NO: 6	

FIG. 2B

421

[illegible]

481

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++ ++++++ ++ ++ + ++ *+ + *+
SEQ ID NO: 7 GGPIGLVRDGEI I DADNNKIDLLVSDKEMAQRKQSWVAPPYRTRGTL SKYAKLVSN A
SEQ ID NO: 2 GGPIGLVHSGDVITIDVSKRVIDVDLTEQQLEERRRKWTPPPYKSTCGALWKYIKLVAPA
SEQ ID NO: 4 GGPIGLIQNGDVINVDIKNRIDVLVSDEEMEARKKKTAPPYKANRGALYKYIKNVTPA
SEQ ID NO: 6 GGPIGLVENGDITI DVGKKVIDVDLTEDQLEQRRRKWSPPPHKXTNGS..... 600

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541

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+   +++ *
SEQ ID NO: 7   SNGCVLDA
SEQ ID NO: 2   SRGCVTDE
SEQ ID NO: 4   SSGCVTDE
SEQ ID NO: 6   ....TLE
                601   608

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601

LC 20

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+
SEQ ID NO: 20 MTKQTIRVEL.....AGPVRA
SEQ ID NO: 09 MEYGAVLAAAPLVARPNWLLSPPL..APSIQIQNRLYSISFPLK.....AGPVRA
SEQ ID NO: 11 .....
SEQ ID NO: 13 .....
SEQ ID NO: 15 .....
SEQ ID NO: 17 MESIRLIYPICPSRHSSFLLSHQSPFCEPSLSLKL...KQFPLTSQNVLEAASPLRP
SEQ ID NO: 19 MT...ASYNT.....
1

```

09

SEQ	ID NO:20	* * * * *	++ ++ ++ ++ ++	TSTKKPKDPNQLSEGRVFTDHMFVMDYAADKGWYDPRIIPYQPLSMDPT	* * * * *	+
SEQ	ID NO:09			CRALASN.YTQTSETVDLDWENLGFIVQTDYMYIAKCGTDGNFSEGEWVPFGPIALSPS		
SEQ	ID NO:11			.....	
SEQ	ID NO:13			.....	
SEQ	ID NO:15			.....	HEGILSR.....	YGNIELSPS
SEQ	ID NO:17			SATLSSDPYSETIELADIENDNLGFLQPTDYMYIMKCTRGGTFSKGELQREGNIELNPS		
SEQ	ID NO:19			.....	GTPDLVDFDWETLGFQLVPTDFMYIMKCSSDGVFTKGELVPYGPIELNPA	
						120
						61

19

[illegible]

121

FIG. 3A

```

* + *++ *+++ ++++ *++ *++ *++ *++ *++ *++ *++ *++ *++ *++
SEQ ID NO: 20 IAVESEFVRAVKGGTGNAKTAGNYASSLKAQQVAEEKFSQVLWLDGIEKKYIEEVGSMN
SEQ ID NO: 09 .....
SEQ ID NO: 11 LIVEDKFHRASPGGTGGVKTIGNYASVLKAQKIAKGGYSDVLYLDAVHDKYLEEVSSCN
SEQ ID NO: 13 .....
SEQ ID NO: 15 LVVEDSIHRAMPGGTGGVKTITNYAPVLKAQMDAKSIGFTDVLYLDAVHKTYLEEASSCN
SEQ ID NO: 17 LIVENEFHRA TPGGTGA.....
SEQ ID NO: 19 LLTEEEYHRAAPGGTGDIKTIGNYASVVSAQRRAKEKGHSDVLYLDPVHKKFVEEVSSCN
241 300

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[illegible]

FIG. 3B

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+ + + + + * * * * *
FCTGTA AVISPV GELIWQ DETLSIN NGETGEI AKKLYDTITGI QKGAVADE.FGWTTTEVA
SEQ ID NO: 20

+ + + + + * * * * *
FCTGTAAVVSPVGSVTYMGKRVEYGNQG VGVVSQQLYKS LTSLQMGNV.EDW MGWTMQLN
SEQ ID NO: 09

+ + + + + * * * * *
FCTGTAAVVSPVGSVTYMQGERYEF.RTGPD TVSQELYTTLTSIQMGMAAEDSXGWTVPVE
SEQ ID NO: 11

+ + + + + * * * * *
FCTGTAAVVAPVSVTYHGQRYEF.RTGHD TLSQT LHTLTLSIQMGLA.EDKKGWTV...
SEQ ID NO: 13

+ + + + + * * * * *
FCTGTAAVLPVGSIVYHGR RVEYGGGKVGA VSQQLYSALTAIQKGLV.EDSMGWSVQLN
SEQ ID NO: 15

+ + + + + * * * * *
FCTGTAAVLPVGSIVYHGR RVEYGGGKVGA VSQQLYSALTAIQKGLV.EDSMGWSVQLN
SEQ ID NO: 17

+ + + + + * * * * *
FCTGTAAVLPVGSIVYHGR RVEYGGGKVGA VSQQLYSALTAIQKGLV.EDSMGWSVQLN
SEQ ID NO: 19

```

SEQ	ID NO:20	ALTESK
SEQ	ID NO:09	.....
SEQ	ID NO:11	..Q...
SEQ	ID NO:13	XIN..K
SEQ	ID NO:15	AID...
SEQ	ID NO:17	.....R
SEQ	ID NO:19	.....
		421 426

FIG. 3C

8/16

FIG. 4A

SEQ ID NO: 29	*** +*****+***** +*****+ +**	MKIYLNKGFVDEKDAKVSVDHGLLY.GDGVFEGIRAYDGVVFMKEHIDRLYDSAKSLC	60
SEQ ID NO: 22		.....A.RVQPKAR	
SEQ ID NO: 24		.....HEAMVIPMDDHMVHRGHGVFTAAIMDGYLYELDQHLDRFLRSASMSK	
SEQ ID NO: 26		MYSSYGGIILDPMAMVIPIDDHMVHRGHGVFTAIIVLDGYLYELDVHLDRLSSASKAK	
SEQ ID NO: 28		.....1	
SEQ ID NO: 29	+ +* * * * * +*****+ +* +* +* +	IDIPLTKEEMIDVVLETLRVNNLRDAYIRLVVTRGVGDLGLDPRKCGKPTIFCIAIPMP	120
SEQ ID NO: 22		IGTFPRDTRLRSILVQMTAASNCRRGSIRYWLWSAGGDFLLSSAGCAGPAEYAVVIPTDY	
SEQ ID NO: 24		IDPPFDRGSIRRIILIQTVSASKCRKGSRLRYWLSAGPGDFQLSPSCCHRSSLYAIIVIQDLS	
SEQ ID NO: 26		ISSPFSRVLHSILIQLTAAASKCKGTLRYWLSAGPGDFLLSSAGCPTSAFYAVVIDQDV	
SEQ ID NO: 28		.....TRLSGCTNPALYAVVIESPS	61
SEQ ID NO: 29	* +* +* * * * +*****+ +* +* +* +	LLGEDGIRAITVSVRRLPVDV.LNPAVKSLNLYNSVLAKIQANYAGVDEAFLLDDKGFVV	180
SEQ ID NO: 22		SQCRH...GVRVTSVPMKPPLFATMKNVNYLPNVLSIMDAEDRGAFASVWVDGEGNVA	
SEQ ID NO: 24		PSSPN.FRGVKVVTSSIPKHPKFAITKSVNYLPNVLSKVEAEAGAFVGIWLDGEGFVA	
SEQ ID NO: 26		SQCKE...GVKVITSNIPMKPSLFATAKNVNYLPNVLSVMEAEKASSSIWVDEEGYIA	
SEQ ID NO: 28		LQVPS...CCRVVTSSIPKSPQFAVMKSVNYLPNALTKEVEEENGAFGIWLDDEGFVA	121

FIG. 4A

9/16

SEQ ID NO: 29 EGTGDN I . FIVKNGVLKTPPVYQSILKGITRDVVIKLAKEEGIEVVEEPLTLHDLYT... *
SEQ ID NO: 22 EGPMVNVAFTAAAGELVLP A . FDKILAGCTAKRLLALAPRLVESGLLKAVTTRHIAADEA *
SEQ ID NO: 24 EGPNNMNVAFVTKDKELIMPH . FDKILSGCTAKRVLTLAESLLREGKLGIRVKTVTVEEG *
SEQ ID NO: 26 EGPNNMNVAFITQDKELVMPP . FDNILHGCTAKRLLLELAPKLVDQGLLKGVATKKLTVEEA *
SEQ ID NO: 28 EGSNNMNVGFVTKNKELLMPR . FDKILSGCTARRVLTAEHLVAHGKLSRVISRNVSVEEG 240

181

SEQ ID NO: 29 ...ADELFITGTAAEIVPVFEIDGRVINNKQVGEITKKLKEKFKDIR.....TKWGIKIVY *
SEQ ID NO: 22 KRCSAEMAFVGSGLPVLPIVEWDDQLIGDGKVGKTMMAISDLLWEDMKSGP..DRIAPVY *
SEQ ID NO: 24 KQ.ADEMMLLGSGVLVCPVQWDEQVIGDGKEGPIITQALLNLI VEDMKSGPSTVRIPVY *
SEQ ID NO: 26 KA.AAEMMYVGSTLPLLP IIVWDDQPIGNRGRVGELTMLLSMDMLWDDMVAGPGTQRIPIVY *
SEQ ID NO: 28 KM.ADEMMLIGSGILVKPVVQWDDKIIIGSGQEGPIAQA..... 300

241

SEQ ID NO: 29 .DE
SEQ ID NO: 22 .K.
SEQ ID NO: 24 ...
SEQ ID NO: 26 VE.
SEQ ID NO: 28 ...
301 303

FIG. 4B

10/16

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+ + + + +
SEQ ID NO: 34 .....MTTKADYIWFNGEMVRWEDAKVHVMSHALHYGTSVFEGIRCYDSHKGPV
SEQ ID NO: 31 QPPLSDPPLPVPANKNILVWVGDELLPRNSAKVSFDSVVQGGDAVWEGRLIYDGK...
SEQ ID NO: 33 .....A.....R.....
1 60

+ + + + +
SEQ ID NO: 34 VFRHREHMQRHLHDSAKIYRFPVSQSIDELMEAC.RDVIRKNNLTSAYIR.PLI FVGDVGM
SEQ ID NO: 31 VFKLDEHLDRFLFDSAKAMAFSNVPTRDWIKDAIFKTLIANGMFENNAHIRLTLTRGKKVTS
SEQ ID NO: 33 V.KLEEHLDRFLFDSAKAMAFSNVPSRDWIKDAIFKTLNANGMFENNAHIRLTLTRGKKVTS
61 120

+ + + + +
SEQ ID NO: 34 GVNPPAG.YSTDVIIAAFPWGAYLGALEQIGIDAMVSSWNRAAPNTIPTAAKAGGNLYS
SEQ ID NO: 31 GMSPAENLYGCALIVLA.EWKPPVYDNS..HGIKLVTAATRRNSPNSIDPKIHNN.NLIN
SEQ ID NO: 33 GMSPTENLYGCVLIVLA.EWKPPVYDNS..HGIKLVTAATRRNSPNSVDSKIHN.NLIN
121 180

+ + + + +
SEQ ID NO: 34 SLLVGSEARRHGYQEGIALDVNGYISEGAGENLFEVKDGVLFPTPFTSSALPGITRDAII
SEQ ID NO: 31 NILAKIEGNLAQAEDAIMLDKDGFSVSETNATNIFMVKKGIVLTPH.ADYCLPGITRATVM
SEQ ID NO: 33 NILAKIEGNLAQAEDAIMLDQDGFVSETNATNIFMVKKGIVLTPH.ADYCLPGITRATVK
181 240
```

FIG. 5A

11/16

FIG. 5B

 SEQ ID NO: 34 KLAKELGIEVREQVLSRESLYLADEVFMSGTAAEITPVRSDGIGVGEGRCCGPVTKRIQQ
 SEQ ID NO: 31 DLVVKENFVLHERRISLSEFFHADEVWTTGTMGEEITPVVMIDGREIGDGKIGPVTRQIQK
 SEQ ID NO: 33 DLVVKENLVLHERRISLSEFFHADEVWTTGTMGEEITPVVMIDGREIGDGKIGLVTRQIQS
 241 300

 SEQ ID NO: 34 AFFGLFTGETEDKWGLDQVNQ
 SEQ ID NO: 31 AYKILTAGQGVPIG..VAEV.
 SEQ ID NO: 33 AYKVLTAGLGV TIPR..NAEA.
 301 322

FIG. 5B

[illegible]

SEQ ID NO: 45	EKGHVAPGEVVVGADSHCTHGAFAFATGIGSTDMAHVFEATGKLWFKVPETIYFNITGD ** + **+++++***++****+*****+ *+++*****+ ++++++ ****+
SEQ ID NO: 36	QEGHCRPGEVLLGTDSHTCNAGAEQQGFATGIGNTDAGFMGTGKALLKVPPTIREFVLDDGE
SEQ ID NO: 38	QEAHCRPGEVLLGTDSHTCNAGAEQQGFATGIGNTDAGFVLGTGKALLKVPPTIREFILDDGE
SEQ ID NO: 40	QEGHCRPGEVLLGTDSHTCNAGAEQQGFATGIGNTDAGFVMGTGKALLKVPPTIREFVLDDGE
SEQ ID NO: 42
SEQ ID NO: 44 <div style="text-align: right;">121</div>

FIG. 6A

13/16

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**++**++**++**++**++**++**++**++**++**++**++**++**++**++**++
SEQ ID NO: 45 EPDEKTIQYVKEAMKKHGTERPFEVIKGDDEDAEFAEYVEIADKIEPVFACPHNVDNVKQ
SEQ ID NO: 36 PADETTFKYLEGR...TSVDYQPVYSDAEARFFSDYRFDVSKLEPVVAKPHSPDNRAL
SEQ ID NO: 38 PADETTFKYLEGK...TSVDYEPVYSDAQARFFSDYRFDVSKLEPVVAKPHSPDNRAP
SEQ ID NO: 40 .....LEGGK.....
SEQ ID NO: 42 .....TSLPYEPVYSDDQARFLAEYRFDVSKLEPVVAKPHSPDNRAL
SEQ ID NO: 44 .....
241
300

```

[illegible]

50

14/16

Footnote 2001

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***** ++++++ ++++++ ++++++ ++++++ ++++++ ++++++ ++++++
SEQ ID NO:45 GI.....IEKFLKYGCVVTPSCSACMG...LYGVLGPGEVCVSTSNRNFGRQG
SEQ ID NO:36 PVPGSGGKTCQIFEEAGCDTPASPCGACLGPRDTYARMNEPTVCVSTTNRNFPGRMG
SEQ ID NO:38 PVPGSGGKTCQIFEEAGCDTPASPCGACLGPRDTYARMNEPTVCVSTTNRNFPGRMG

***** ++++++ ++++++ ++++++ ++++++ ++++++ ++++++ ++++++
SEQ ID NO:40 PVPGSGGKTCQIFEEVGCDTPASPCGACLGPRKDTYARMNEPTVCVSTTNRNFPGRMG
SEQ ID NO:42 PVPGSGGKTCQIFEEAGCDTPASPCGACLGPRDTYARMNEPTVCVSTTNRNFPGRMG
SEQ ID NO:44 PVPGSGGKTCQIFEEAGCDTPASPCGACLGPRDTYARMNEPTVCVSTTNRNFPGRMG
361 420

***** ++++++ ++++++ ++++++ ++++++ ++++++ ++++++ ++++++
SEQ ID NO:45 SLEAEIYLASPIITAAACAVKGEIVDPRL..
SEQ ID NO:36 HKEGQIYLASPYTAAASALTGYVTDPRDFLM
SEQ ID NO:38 HKEGQIYLASPYTAAASALTGYVTDPRDFLM
SEQ ID NO:40 .....
SEQ ID NO:42 HKEGQIYLASPYTAAASALTGYVTDPRDFL.
SEQ ID NO:44 HKEGQIYLASPYTAAASALTGYVTDPRDFLS
421 452
```

FIG. 6C

15/16

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+
SEQ ID NO: 54 MEKFTIYKGTSPV.....TAALLAPIRAPSFAFIRRSQLTCHRL.....HSLKCR
SEQ ID NO: 47 M..AAALSGTAVS.....TAALLAPIRAPSFAFIRRSQLTCHRL.....HSLKCR
SEQ ID NO: 49 M..AAAAAPALSIAE.AAPVTAVLAPCPTPSRTERRRSWVAACR.....PALKCHH
SEQ ID NO: 51 MRKXTEVREEALSIOQWPCTRFSSAATVLPRLAFTKLSLSHSHLTLLPRFLSFPTPKSSN
SEQ ID NO: 53 .....ARAAVS.....TAALLAPIRAPSFAFIRRSQLTCHRL.....HSLKCR
1
60

+
SEQ ID NO: 54 .....VMNDNIDTDQIIPKQFLKAIDKK..GEGK
SEQ ID NO: 47 A...GSIVPAAAAAAGSSSPSSAVFHGECFVVGDNIDTDQIIPAEHLTLVPSKPDEYRK
SEQ ID NO: 49 SRPLTAVVAAAAAAGDSTAGVFHGECEVVGDNIDTDQIIPAEHLTLVPSKPDEYRK
SEQ ID NO: 51 PRNRVAVSLQTPRAQSAASASPSASFHGLCYVVGDNIDTDQIIPAEYLTLPVPSKPDEYK
SEQ ID NO: 53 A...GSIVPAAAAAAGSSSPSSAVFHGECFVVGDNIDTDQIIPAEHLTLVPSKPDEYRK
61
120

+
SEQ ID NO: 54 NLFYEWRYLKDYDENPDPFILNAPKYKASLLISGDNFGSGSSREHAAWALSDYGFRAIIA
SEQ ID NO: 47 LGSFAFAGLPSAAYPTPFVAPGEESRYAIIVGGANFGCGSSREHAPVALGAAGARAIVA
SEQ ID NO: 49 LGSFAFVGLPTAAYPTPFVAPGEETTRYAVIIGGANFGCGSSREHAPVALGAAGARAVVA
SEQ ID NO: 51 LGSYALIGLP.ATYATRFIEPGEIKTKYAIIVGGANFGCGSSREHAPVALGASGAAAVVA
SEQ ID NO: 53 LGSFAFAGLPSAAYPTPFVAPGEESRYAIIVGGANFGCGSSREHAPVALGAAGARAIVA
121
180
```

FIG. 7A

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+++++ *****+*****+***** *
SEQ ID NO: 54 PIWKDLINGLDDIGITLQYEEAISAYEQKN..Q
SEQ ID NO: 47 PIGDA..GPVIEAGGIFAYARKTGMIASKAAA.
SEQ ID NO: 49 PIGDA..GPVIEAGGIFAYARKTGMIASKSA..
SEQ ID NO: 51 PIGDA..GPVIEAGGIFAYARKTGMPISR....
SEQ ID NO: 53 PIGDA..GPVIEAGGIFAYARKTGMIASKAAA.
241
274
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73